

# Drug Traffickers Utilize GPS Enabled Satellite Buoys to Locate Cocaine Shipments

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Transnational Threats



Some of the 37 bales of cocaine are seen in one of the compartments of a self-propelled, semi-submersible craft, during an at sea interdiction about 350 miles west of Guatemala in 2014. (Photo: U.S. Coast Guard)

Drug traffickers moving shipments from South America via maritime routes through Central America and Mexico are constantly changing strategies to avoid detection and seizure. In a recent article, Costa Rican web daily *CR Hoy* reported on a new tactic that allows traffickers to leave cocaine shipments at high-sea attached to GPS-enabled radio or satellite buoys.

This tactic is unique because it effectively mitigates risk and turns the ocean into a veritable storage unit for traffickers with little to no risk of loss or arrest of personnel. Radio and satellite buoys were first noted by Colombian authorities in late 2014, but Central American authorities have indicated the tactic has moved into their area of operations (AO) in recent months.

## **Satellite and Radio Buoy Routes**

According to Colombian newspaper *El Tiempo*, satellite and radio buoys are most commonly used along the Pacific coast and were likely adapted for drug trafficking purposes by the Úsuga Clan and the Daniel Aldana FARC Front,. Cocaine shipments utilizing this tactic generally depart from Tumaco, Colombia and head up the coast to Costa Rica and Mexico, an idea evidenced by the fact that Colombian authorities alone seized more than 2 metric tons along this sole route during the first three months of 2015.

Satellite buoys have been used in the fishing industry for positioning and tracking purposes for years, but represent a new technology for drug traffickers. When used for this purpose, Mexican newspaper *El Universo* indicated that a satellite buoy is tied to drug shipments wrapped in fishing net and dropped at high sea where they remain anchored until they can be picked up and moved to land.

The drug packages themselves are protected in impermeable sacks and are tracked via individual GPS locators that connect directly to mobile phones or computers which further facilitates the management of shipments. Messages can be sent to and from the buoys in as little as 30 seconds using the satellite network associated with the buoy.

Coverage within these networks is global and allows the shipment controller to watch movement from hundreds or thousands of miles away. *El Universo* also pointed out that the GPS monitors can function for multiple days as they are equipped with photocells that utilize solar power to charge. In terms of color and size, satellite buoys are usually blue in color and level-shaped, which impedes radar detection. They also come equipped with signal encryption software which prevents data decoding and hence seizure of shipments.

Freddy Ramos, the Deputy Director of the National Drug Police in Ecuador, laid out the strategy associated with satellite buoys in an interview with *Ecuavisa*, an Ecuadorean news site. He indicated that “maritime vessels, which may be fishing boats or fast-boats leave from shore without any type of drug shipment. They tell port authorities that they are conducting a fishing trip and provide information regarding crew members and the date of return. Drug transport vessels then drop shipments in opportune locations and turn on the GPS locators. These packages are tracked remotely via the Internet, and the coordinates are provided to empty vessels so that they can be picked up.” Ramos further noted that there have recently been more instances involving satellite buoys than radio buoys which may highlight a possible preference for the satellite method.

## **Radio Buoys**

Radio buoys are similar to satellite buoys in the sense that they are small and shaped for discretion. However, they are different than satellite buoys in the sense that they rely on VHF or UHF radios for data transmission although many have internal GPS receivers. They are programmed to emit a radio signal at a particular frequency which can be picked up by a vessel’s computer or radio direction finder indicating either direction or direction and distance to the radio beacon. Newer models allow complete monitoring of devices up to 50 miles and are able to transmit encrypted radio messages.

Once activated, the radio buoy will emit an intermittent flash every second. Furthermore, it will transmit the GPS location of the device every 15 minutes.

*Ecuavisa* reported that radio buoys were first detected in their AO in February 2015. During an interview with Ecuadorean prosecutor Danny Vizueta of the Special Unit for Transnational Crime, in this particular case, cocaine packages were submerged 8 meters below water at high sea.

A radio buoy was placed in the middle of the packages and after about two hours, the tape that held the entire shipment together disintegrated and the packages were released into open water at which time the buoy started transmitting a signal indicating that it was time for pick-up. Although it was not

specified in this source, it is likely the signal was transmitted to one or more fishing vessels in the area and that the packages picked up were subsequently delivered to distinct geographic locations.

When comparing the two technologies, it becomes apparent that the satellite buoys have some advantages over the radio buoy, which is likely why authorities are reporting increased use of satellite devices. Some of these advantages include global tracking from remote locations and rapid transmission of data. However, it is important to note that both technologies are unique for at least three separate reasons.

First, they were adapted from the fishing industry into a tactic that effectively uses international waters as a storage facility for large-scale drug shipments. Once at high-sea, the buoys are barely visible as the models used are designed to blend into the natural landscape.

Second, using buoys mitigates risk of seizure as the packages can be left floating for extra time or abandoned if authorities are detected in the area.

Colombian newspaper *El Espectador* supported this idea by reporting on a case off the coast of Panama in December 2014 in which traffickers cut the cords holding shipments to three separate buoys and fled after they noticed patrols in the area. In total, 60 kilograms of cocaine were seized during this operation although some media sources noted that single shipments may exceed 650 kilograms.

Third, the chance of losing drug shipments at high-sea is minimal as both methods use GPS technology to track the whereabouts of floating packages. Furthermore, the impermeable material used to hold packages together is designed to float and resist humidity which provides an added protection measure.

Overall, buoy tactics represent a frustrating phenomenon for authorities as they are difficult to detect, but Martín Arias, Director of the Costa Rican Coast Guard, told *La Prensa Libre* newspaper that recent international cooperation between Costa Rica, Colombia, and the United States has been effective in thwarting at least three satellite and radio buoy shipments. He further indicated that the buoy tactic is no longer as surprising as it was six months ago and that new technology is helping authorities more effectively target and locate shipments floating in the sea. If that is the case, it may only be a matter of time before traffickers must again go back to the drawing board, but up until now it has been very successful.